pline to stand at a bedside keeping one's eyes busy and mind on the sensory input has become one of the lost arts. It's a pity, because the joy goes with it. On the other hand, there is no reason why those skills cannot be developed in a home study program. It is a skill that the best clinicians have, and I am pleased that Dr Miller has detailed the Holmesian connection.[1]

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TO THE EDITOR: Contrary to popular belief,[1] the extraordinary gift of Sherlock Holmes was not his ability to deduce (to reason from general theories to particular facts), but to induce (to reason from facts to theories). Compared with his ability to induce, Holmes's ability to deduce was quite ordinary. For example, given the general premise that all unicorns have a single horn, Holmes—and the average 10-year-old child—could readily deduce that any particular unicorn has a single horn.

The ability for induction is characteristic of skilled medical diagnosticians, but medical diagnosis also entails deduction and observation. Consider the logical sequence of evaluating a patient:

A set of diagnostic possibilities—the differential diagnosis—is generated by induction from observed facts. From each potential diagnosis, additional findings are predicted by deduction. Then, the predictions are tested against observed data (for example, laboratory results or response to treatment) to support or rule out the diagnosis.

The distinction between deduction and induction is profound; it is equivalent to the difference between hindsight and foresight. Because he wrote with hindsight, Conan Doyle sprinkled clues he had deduced after the fact; clues contrived to perplex readers who—together with real detectives and physicians—must experience mysteries with foresight. Holmes, on the other hand, enjoyed the same perspective as Conan Doyle, without which his successful inductions were no more than lucky guesses; the data he induced from can be explained by any number of alternative hypotheses.

Because deduction can be probative but induction can prove nothing, physicians have long sought deductive methods of diagnosis; for example, collecting enough data to be conclusive and seeking pathognomonic signs. These wished-for methods are based on the premise that diagnostic categories can be completely defined as a collection of their known elements. However, disregarding identities (such as a tiny head equals microcephaly), completely defined categories and pathognomonic signs are merely imaginary products of inadequate knowledge.

In the ideal universe of scientific taxonomy, diagnostic categories comprise all facts pertaining to an illness—whether the facts are known or not. In the real world of clinical medicine, however, the known diagnostic categories cannot be more complete than the set of known facts—a set that is not only incomplete, but partially incorrect as well. In former days, for example, bizarre behavior, delusions and disordered thinking were diagnostic of witchery, but contemporary knowledge and diagnostic theories do not accommodate witchery. Similarly, contemporary diagnostic categories will be replaced, expanded, narrowed or deleted in the future because of enhanced knowledge and more sophisticated theories.

The belief in deductive methods of diagnosis encourages physicians to act as mere technicians—that is, as if findings dictate treatment with no need for diagnosis. Thus, if a person is delusional, chlorpromazine is indicated. If after treatment the person remains delusional, more chlorpromazine is indicated. The technician is blind to alternative diagnoses such as bipolar illness or drug toxicity.

Physicians cannot practice competent medicine by applying Holmes's fictional methods of diagnosis; they must recognize that both induction and deduction are needed for adequate medical assessment and treatment. Those physicians who abandon the logical foundations of their profession are charlatans, because their "science" is fictitious. Certainly, charlatans cannot reverse today's politically expedient trend of corrupting medical facilities into fix-it shops.

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How Important Is Knowing It All?

TO THE EDITOR: As a primary care physician working in specialties (emergency medicine and family practice) that have considerable overlap with other specialties with regard to relevant medical knowledge, I do not feel the findings of Kronlund and Phillips[1] published in the April issue are very surprising. Neither are they necessarily much reflection on the competence of the physicians surveyed. They rather reflect the explosion in data relevant to the practice of medicine. I am sure this in large measure explains the increasing specialization and subspecialization of physicians. The practice of clinical medicine is usually not conceptually difficult, but human memory is simply not up to the task of "knowing it all" with the certainty required for the safe practice of medicine. Furthermore, the unique and creative aspects of human intellect (reason, assimilation, hypothesizing) are wasted in trying to do so. *Roundsmanship* too often passes for good judgment and replaces practicing the art of medicine compassionately.

I see widespread use of accessible and easy-to-use clinical computer data bases as a powerful means to free physician energy for thinking and assimilating, rather than memorizing. Such an approach will also be a major factor in alleviating one major source of residency stress—the perceived need to know it all—alluded to elsewhere in the same *WJM* April 1985 issue.[2,3] Paradoxically, I would probably end up having more facts at my finger tips using an easily accessible computer data base. At the moment I needed to know some fact and was, therefore, most interested and curious, I could ask the computer and instantly have the data sought. Consider this situation as opposed to being bogged down by the lengthy and sometimes fruitless searches of textbooks we all do, or simply cannot take the time to do, when we need to, during a busy clinic day. Too often the question is not answered, and the chance to learn and improve is lost. What is needed is a rapid,

easy-to-use data base. But it is unnecessary and unrealistic to expect it to be located in each physician's head, except pertaining to a relatively narrow specialty area.

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A Treatment for Enuresis

TO THE EDITOR: I have been interested in the subject of enuresis for many years and have come up with the following observation and recommendation for treatment. I have observed the simple fact that the more one exercises and perspires the less one urinates. This is because in a sense the skin organ has function much like the kidneys, in that it also excretes liquid, not unlike urine.

Bearing these simple conclusions in mind, I have recommended that the enuretic person engage in continuous rhythm exercise, such as running, cycling, swimming or even walking briskly for one hour daily, preferably in the late afternoon, without replacement of fluids thereafter.

Barring the presence of infection or a congenital malfunction, I have been quite pleased with the results. In addition to this diuretic effort of the exercise program, the patients gain many fringe benefits of exercise which include a better feeling about themselves. This seems to help the patients as well.

I would be interested in other practitioners' comments on this simple treatment of enuresis.

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Hitting Below the Belt

TO THE EDITOR: Since the House of Delegates of the American Medical Association passed a strong resolution for a ban on boxing, the pros and cons of such a move have made it not only to the front page but also to the editorial page.

The media, not often given to throwing bouquets to the AMA, were almost embarrassingly complimentary. Editorials spoke of the courage and the foresight of the doctors in taking this stand.

Medical associations from New York to California joined in the plea for a total ban on boxing. Even Howard Cosell now wants boxing banned!

It seemed that only those who would suffer a financial loss—the promoters, the boxing associations, the TV moguls—were willing to come out swinging against such a ban.

There were a few bleeding hearts who wept that by banning boxing we would be depriving young men from the minorities of a chance at the "big money."

Along with the public endorsement of a ban on boxing came the admission that it had little or no chance of being put into effect. A great idea but—because the average American man (and some women) seems to get a psychological lift out of sitting in front of the tube, beer in hand, watching one human wreak violence on another—a total ban will never come to pass.

There is one hope, one simple remedy, that has so far received little attention and has been mentioned only in passing by *JAMA*: total banning of blows to the head.

Simple as that.

We all know there is a ban on hitting a boxing opponent below the belt. One punch beneath the belt will bring a strong warning from the referee. A second or third may bring disqualification of the offending boxer.

Now, all men who have participated in contact sports have at one time or another experienced a blow to the gonads, and we well remember that the pain was excruciating. But it was temporary and our genitalia suffered no long-lasting injury, either to our sex drive or to our reproductive capacity.

Why then is hitting below the belt considered such a heinous act, when rendering repeated blows to the brain, an uppercut to the chin or a sharp left to the head is considered an expert exhibition of the fine art of boxing?

Hitting below the belt can give temporary pain, but repetitive blows to the head, from the Adam's apple up, can produce contusions, lacerations and hemorrhages from the brain stem to the gray matter. And it has been shown that this occurs even when protective headgear is used.

The quick-witted, physically superb Muhammad Ali, with his dancing feet, has been hailed as the greatest boxer of all time. More likely his legacy to tomorrow's generation will be a newly identified clinical entity—"pugilistic parkinsonism," a damaged brain syndrome characterized by a shuffling gait, glazed eyes and dull-witted mumbling speech.

A call for a total ban on boxing may, indeed, be a noble but futile gesture. But if hitting below the belt is so wrong, then certainly it is time for all physicians to cry out that repeatedly banging the brain of another human with the fist is gross, vicious violence.

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Vietnamese Patients and Physicians

TO THE EDITOR: I have read, with interest, the article "Culture Shock—A Review of Vietnamese Culture and Its Concept of Health and Disease" by Dr Nguyen, published in the March issue.[1]

Being a Vietnamese physician myself, I would like to share some personal thoughts in regard to the treatment of Vietnamese patients. I sincerely feel that Vietnamese physicians would be most helpful to their compatriots by guiding them into the American values and way of life. I do not think "East is East, and West is West." Many of the basic human values are shared by ancient Oriental culture and American culture.

The Vietnamese should make an effort to erase their misplaced pride, and realize that there may be better ways than theirs. For example, it is erroneous to identify being late to appointments as a less stressful way of conducting business. Likewise, they should begin to ask what they could do to give back to America in return for all the goodness they have received from her. Respect is to be earned, not asked for. The Vietnamese will not earn respect by asking for special status because of being refugees.

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